

ABSTRACT

A presently-preferred magnetic bearing comprises a rotor disk having a first plurality of concentric teeth extending from a surface thereof, and a stator disk having a second plurality of concentric teeth extending from a surface thereof. The first and the second plurality of concentric teeth are spaced apart by a gap that permits a primary magnetic flux to flow between the first and the second plurality of concentric teeth substantially in a first direction. The magnetic bearing also comprises a plurality of flux focusing magnets fixedly coupled to at least one of the surface of the rotor disk and the surface of the stator disk. The flux focusing magnets produce a secondary magnetic flux that flows substantially in a second direction substantially opposite the first direction.